

CLAIMS

1. (Currently amended) A capacitive touch pad comprising cover and first layers,
the cover layer comprising a non-conductive cover providing galvanic isolation of the first layer,
the first layer comprising a plurality of row-shaped row-sensing electrodes and a row-by-column array of column-sensing electrodes,
each column of column-sensing electrodes interconnected by conductive traces,
the row-sensing electrodes and column-sensing electrodes defining interleaved combs therebetween,
each column-sensing electrode overlapping at least two row-shaped, row-sensing electrodes,
each comb comprising at least two fingers.
2. (Original) The capacitive touch pad of claim 1 wherein the fingers are no wider than eight mils.
3. (Original) The capacitive touch pad of claim 1 wherein the fingers define spaces therebetween, and the spaces are no wider than eight mils.
4. (Previously presented) The capacitive touch pad of claim 1 further comprising a second layer, the first layer lying between the cover and second layers, the second layer comprising a ground plane.
5. (Previously presented) The capacitive touch pad of claim 4 further comprising a third layer, the second layer lying between the first and third layers, the third layer bearing circuitry.
6. (Previously presented) The capacitive touch pad of claim 1 wherein in the first layer further comprises annular copper around the electrodes.
7. (Original) The capacitive touch pad of claim 6 wherein the annular copper is connected to ground potential.

8. (Canceled)
9. (Previously presented) The capacitive touch pad of claim 4 further comprising an isolator/dielectric layer between the first and second layers.
10. (Previously presented) The capacitive touch pad of claim 5 further comprising an isolator/dielectric layer between the second and third layers.
11. (Previously presented) The capacitive touch pad of claim 1 wherein the number of rows is at least three and the number of columns is at least three.
12. (Previously presented) The capacitive touch pad of claim 11 wherein the number of rows is at least eleven and the number of columns is at least thirteen.
13. (Currently amended) A capacitive touch pad comprising cover and first layers,
the cover layer comprising a non-conductive cover providing galvanic isolation of the first layer,
the first layer comprising a plurality of row-shaped row-sensing electrodes and a row-by-column array of column-sensing electrodes,
each column of column-sensing electrodes interconnected by conductive traces,
the row-sensing electrodes and column-sensing electrodes defining interleaved combs therebetween,
each column-sensing electrode overlapping at least two row-shaped, row-sensing electrodes,
each comb comprising at least two fingers,
the touch pad further comprising a second layer,
the first layer lying between the cover and second layers,
the second layer comprising a ground plane.
14. (Previously presented) The capacitive touch pad of claim 13 further comprising a third layer,
the second layer lying between the first and third layers,

the third layer bearing circuitry.

15. (Currently amended) A capacitive touch pad comprising cover and first layers,
the cover layer comprising a non-conductive cover providing galvanic isolation of the first layer,
the first layer comprising a plurality of row-shaped row-sensing electrodes and a row-by-column array of column-sensing electrodes,
each column of column-sensing electrodes interconnected by conductive traces,
the row-sensing electrodes and column-sensing electrodes defining interleaved combs therebetween,
each column-sensing electrode overlapping at least two row-shaped, row-sensing electrodes,
each comb comprising at least two fingers,
wherein in the first layer further comprises annular copper around the electrodes.
16. (Previously presented) The capacitive touch pad of claim 15 wherein the annular copper is connected to ground potential.
17. (Previously presented) The capacitive touch pad of claim 13 further comprising an isolator/dielectric layer between the first and second layers.
18. (Previously presented) The capacitive touch pad of claim 14 further comprising an isolator/dielectric layer between the second and third layers.
19. (Currently amended) A capacitive touch pad,
the touch pad defining top, bottom, left, and right edges,
the pad comprising cover and first layers,
the cover layer comprising a non-conductive cover providing galvanic isolation of the first layer,
the first layer comprising a plurality of row-shaped row-sensing electrodes each extending toward the left and right edges, and a row-by-column array of column-sensing electrodes,

each column of column-sensing electrodes interconnected by conductive traces,
the row-sensing electrodes and column-sensing electrodes defining interleaved combs
therebetween,

each column-sensing electrode overlapping at least two row-shaped, row-sensing
electrodes,

each comb comprising at least two fingers,

at least one regular row-shaped row-sensing electrode having fingers extending toward the
top edge and having fingers extending toward the bottom edge,

at least one row of column-sensing electrodes having fingers extending toward the top edge
and having fingers extending toward the top edge.

20. (Previously presented) The capacitive touch pad of claim 19 wherein the fingers are no
wider than eight mils.
21. (Previously presented) The capacitive touch pad of claim 19 wherein the fingers define
spaces therebetween, and the spaces are no wider than eight mils.
22. (Previously presented) The capacitive touch pad of claim 19 further comprising a second
layer,
the first layer lying between the cover and second layers,
the second layer comprising a ground plane.
23. (Previously presented) The capacitive touch pad of claim 22 further comprising a third
layer,
the second layer lying between the first and third layers,
the third layer bearing circuitry.
24. (Previously presented) The capacitive touch pad of claim 19 wherein the first layer further
comprises annular copper around the electrodes.
25. (Previously presented) The capacitive touch pad of claim 24 wherein the annular copper is
connected to ground potential.

26. (Previously presented) The capacitive touch pad of claim 22 further comprising an isolator/dielectric layer between the first and second layers.
27. (Previously presented) The capacitive touch pad of claim 23 further comprising an isolator/dielectric layer between the second and third layers.
28. (Previously presented) The capacitive touch pad of claim 19 wherein the number of rows is at least three and the number of columns is at least three.
29. (Previously presented) The capacitive touch pad of claim 28 wherein the number of rows is at least eleven and the number of columns is at least thirteen.
30. (Previously presented) The capacitive touch pad of claim 19 wherein each of the column-sensing electrodes has fingers extending toward the top edge and has fingers extending toward the bottom edge.